Sexual activity in ankylosing spondylitis

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ABSTRACT

Objective: To assess the sexual activity of patients with ankylosing spondylitis, correlating it with disease activity and functional indices. **Patients and methods:** Thirty-two patients with ankylosing spondylitis and 32 healthy controls were assessed regarding pain, fatigue, sexual activity (by use of pictures of seven sexual positions), disease activity (by use of Bath Ankylosing Spondylitis Disease Activity Index – BASDAI), and functional capacity (by use of Bath Ankylosing Spondylitis Functional Index – BASFI). After the interview, the patients were divided into two groups: group A (with sexual activity) and group B (no sexual activity). **Results:** Group B showed statistical association with longer disease duration (P = 0.01), and higher BASFI (P = 0.0007) and BASDAI (P = 0.03) scores. No correlation was observed between age and functional capacity. Man lying on his back and woman on top was the most frequent, enjoyable and least painful position. The position with the woman on her back and a man lying on top was the least chosen. Control individuals reported a higher frequency of sexual activity, longer duration of intercourse, and less pain and fatigue; the reported frequency of orgasms, however, was similar in both groups. **Conclusion:** The chronic nature of ankylosing spondylitis, with poor functional capacity and higher disease activity, interferes with sexual intercourse. When sexual activity was possible, orgasm and sexual satisfaction did not differ from those of healthy controls.

Keywords: sexuality, ankylosing spondylitis, rheumatic diseases.

INTRODUCTION

Sexuality has been described as essential to human beings, playing an important role in their quality of life.[1–3] Quality of life, from the health perspective, can be defined as the general satisfaction perceived by individuals about several aspects of their lives, and not only lack of disease.[4]

The physical limitation of patients with ankylosing spondylitis (AS) impairs their sexual functioning and affects their emotional status, making sex even more difficult.[5,6] Similarly, loss of self-esteem, depression, and the patient's perception of how her/his body image might be seen by others can contribute to sexual dysfunction.[7,8]

A study interviewing patients with rheumatoid arthritis (RA) and AS has reported that pain and fatigue are factors that diminish libido and can be related to mobility limitation during sexual relationship. Patients with AS, however, have reported that sexual motivation, intensity of orgasms, and frequency of sexual relationships were maintained.[9]

Sexual dysfunction is characterized by the inability to complete the sexual act because of the reduction in sexual drive, arousal or orgasm.[10] Some studies have reported sexual dysfunction in AS and its association with depression, fatigue, and mobility limitation.[7,8,11–13] Most authors have reported a low level of sexual satisfaction in those patients.[7,8,11,12,14] Two recent studies have observed no sexual dysfunction in AS.[15,16] This study aimed at assessing sexual activity, fatigue, pain, duration of sexual relationships, orgasm, and sexual satisfaction in patients with AS, and at correlating those variables with demographic data, and functional capacity and disease activity indices.

PATIENTS AND METHODS

This study assessed 32 consecutive patients diagnosed with AS, according to the modified New York criteria,[17] under clinical care at the outpatient clinic of spondyloarthritides of the Rheumatology Division of the Medical School of the Universidade de São Paulo. The patients underwent a direct

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interview, in which the following instruments were applied: questionnaire about sexual activity; Health Assessment Questionnaire modified for AS (HAQ-S);[18] Bath Ankylosing Spondylitis Functional Index (BASFI);[19] and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI).[20] The study was approved by the Committee on Ethics and Research of the Universidade de São Paulo. All patients provided written informed consent prior to study participation.

The protocol to assess sexual activity comprises 24 questions and seven pictures. Aspects such as pain, fatigue, orgasms and sexual satisfaction are approached. The pictures describe the most common sexual positions as follows: man sitting with woman sitting on top, facing away from the man (position A); man sitting with woman sitting on top, facing each other (position B); man lying on his back, with woman sitting on top, facing each other (position C); both standing, and woman facing away from the man, with her back bent (position D); man kneeling, bending over the woman lying on her back with her legs bent (position E); woman lying on her back and man lying on top (position F); man lying on his back and woman lying on top, facing each other (position G).

The HAQ-S contains 25 questions, 20 of which are grouped into eight components that assess different aspects of daily life related to physical activity, while the other five questions assess specific characteristics of AS; the final score ranges from 0 to 3.[18] Pain (general and at night) was assessed by use of the Visual Analogue Scale (VAS). The BASFI was used to assess functional capacity, ranging from 0 to 10.[19] The BASDAI assesses disease activity, and ranges from 0 to 10.[20]

After the interview, the patients were divided into two groups, according to their sexual activity: group A (with sexual activity, 21 patients) and group B (no sexual activity, 11 patients). Regarding age and gender, the groups were statistically homogeneous (P = 0.06 and P = 0.60, respectively), but differed regarding marital status (P = 0.023). The sexually active group had more married patients than the sexually inactive group.

The control group (group C) consisted of 32 healthy individuals, who were accompanying a patient to the Rheumatology outpatient clinic visit. They were paired for age, gender and sociocultural status, and were compared with the patients with AS. The statistical analysis was performed using the SPSS software, version 15. Student *t* test was used for comparing the means and Fisher exact test for comparing the frequencies. The results are shown as means and standard deviations for quantitative variables, and as frequencies (percentages) for qualitative variables. Mann-Whitney test was used to compare the measurements between the groups. The significance level of $P < 0.05$ was adopted.

RESULTS

Of the 32 patients with AS, 28 (87.5%) were men (mean age, 43.9 ± 10.5 years; range, 23–66 years) and four (12.5%) were women (mean age, 47.8 ± 19.3 years; range, 31–74 years). Twenty-one patients were white (65.6%) and 11 non-white (34.4%). Sixteen patients were married (50%) and 21 had children (65.6%). The mean disease duration was 12.3 ± 10.1 years (2–49 years), and the mean age at disease onset was 28.6 years (14–51 years), with higher incidence in the fourth decade of life (34.4%).

Group C comprised 28 men (age range, 21 to 71 years; mean age, 38.4 ± 14.3 years) and four women (age range, 19 to 46 years; mean age, 35.3 ± 11.5 years). Twenty-two individuals were white (68.8%), and ten were non-white (31.2%); 23 were married (71.9%); and 20 had children (62.5%). All individuals reported being heterosexual.

Table 1 shows the number of patients in each group, their age, disease duration, marital status, HAQ-S, BASFI,

Table 1
Demographic data – groups A and B

	Group A (n = 21)	Group B (n = 11)	Total A + B	P
Men	19 (90.5%)	9 (81.8%)	28	0.5932
Women	2 (9.5%)	2 (18.2%)	4	0.5932
Married patients	14 (66.7%)	2 (18.2%)	16	0.023*
Mean age (years)	41.7 ± 10.0	49.5 ± 13.0	43.9 ± 10.5	0.06
Disease duration (years)	9.0 ± 6.1	18.4 ± 13.2	12.3 ± 10.1	0.01*
HAQ-S	0.7 ± 0.6	0.8 ± 0.5	0.7 ± 0.6	0.16
BASFI	3.6 ± 1.9	4.5 ± 1.3	4.6 (DP ± 2.3)	0,0007*
BASDAI	3.5 ± 2.2	5.3 ± 2.2	4.2 (DP ± 2.5)	0.03*

*Statistically significant (P < 0.05), Fisher exact test.

Table 2
Data regarding sexual activity

	Group A (n = 21)	Group C (n = 28)	P
Week frequency of sexual relationships (2 or +)	66.7%	85.7%	0.1687
Married individuals	66.7%	71.9%	0.7621
Pain after sexual relationship	61.9%	10.7%	0.0002*
Sexual relationship interrupted due to pain	9.5%	0	0.01786*
Fatigue	33.3%	28.6%	0.7621
Orgasm	71.4%	75%	1.0
Sexual satisfaction	85.8%	92.9%	0.6392
Complete sexual act	71.4%	89.3%	0.1460
The least painful position	C	F	
The most enjoyable position	C	C	
Duration of sexual relationship	19.2 min	34.2 min	

BASDAI, and their correlations. Group B showed statistical association with longer disease duration (P = 0.01), worse results of BASFI (P = 0.0007), and higher BASDAI (P = 0.03). No correlation between age (P = 0.06) and functional capacity assessed by use of HAQ-S (P = 0.16) was observed. The frequency of sexual relationships reported by patients in group A was as follows: more than three per week, eight patients (38.1%); twice a week, six patients (28.6%); once a week, two patients (9.5%); and sporadic, five patients (23.8%). The duration of the sexual relationship ranged from 10 to 30 minutes (mean, 19.2 minutes). In group C, 85.7% reported two or more sexual relationships per week, with longer mean duration, as shown in Table 2.

Although 61.9% of the patients in group A reported pain after sexual relationship, interruption of sexual intercourse occurred in only 9.5%. Such figures were statistically significant as compared with those of group C (P = 0.0002 and P = 0.0178, respectively). Spine mobility was reduced in 95.2% of those patients. In group A, 33.3% of the patients reported fatigue and 28.8% informed that the disease interfered with sexual relationships. However, 85.8% of group A patients reported achieving sexual satisfaction, and 71.4% reported frequent orgasms, with no statistical difference from controls (P = 0.7621; P = 0.6392; P = 1.0; respectively).

Considering the limitations due to disease and the sexual positions chosen by the patients, the seven positions depicted in the sexual activity protocol were assessed. Position C was accepted as the most enjoyable and least painful by 21.8% of the patients, while position F was the least chosen (3.1%) due to the mobility limitations caused by the disease, mainly in the hip and spine.

DISCUSSION

The present study confirmed that AS can modify the sexual behavior of patients. One cause of that sexual dysfunction might be related to age,[8] but such association was not observed in this study, in which the patients' mean age was 50 years.

Clinimetric values, such as BASFI, HAQ-S and BASDAI, were similar to those reported in the literature.[19,21,22] The HAQ-S scores were lower than those reported in another national study.[4]

The fact that patients with active sexual life are likely to have better HAQ-S scores emphasizes that individuals with better physical function are more likely to have a more complete sexual life. A study with patients with juvenile idiopathic arthritis has shown that polyarticular disease has more influence on physical capacity for sexual activity than axial disease.[23]

Patients with AS and active sexual life had lower BASDAI scores, suggesting that higher disease activity might have a limiting influence on complete sexual relationship, similarly to that reported in other studies.[8,12] The mean BASDAI scores of patients with active sexual life were similar to those of another study,[15] which has found no sexual dysfunction in patients with AS.

Patients with active sexual life also had lower BASFI scores, indicating that better functional capacity can contribute to active sexual life, similarly to that reported in other studies.[15,24] However, Dincer et al.[7] have found no correlation between functional capacity and disease activity in men with sexual dysfunction.

The major limiting factors for satisfactory sexual relationship are pain, fatigue, limited mobility, and lack of libido.[1,4,6,9,13,23,25–28] Most group A patients reported pain after sexual relationship, although only a few had to interrupt it. The cause of that pain

might be the involvement of the axial skeleton and hips, resulting in a reduction in the spinal range of motion, requiring an extra effort to perform the sexual act. The pain that limits sexual activity can also be triggered by fear and anxiety.[7] Psoriasis, associated or not with joint inflammation, also contributes to lower self-esteem, affecting negatively the body image for sex.[10,13]

Fatigue, a common complaint among patients with AS, can also contribute to reduce sexual pleasure.[6,27,28] Nevertheless, sexual satisfaction was claimed by several patients with AS, who reported frequent orgasms, as observed in a classic study.[9] In the present study, no statistically significant difference was observed between groups A and C regarding sexual satisfaction, fatigue and orgasms.

Elst et al.,[9] analyzing patients with AS (50 men and 16 women) and RA (32 men and 90 women), have reported that position F was preferred by most patients, contrary to the present study, in which position F was the least frequently used. The major difference between studies is the predominance of men in the present study. Despite joint involvement, the patients varied positions differently from those with RA studied by Yoshino & Uchida,[25] who reported difficulty changing position during the sexual act.

In a recent qualitative assessment of sexuality, Helland et al.[13] have analyzed 21 patients with rheumatic diseases (RA, AS, psoriatic arthritis and juvenile arthritis). The mean age and disease duration, and HAQ-S score were similar to those of the patients of the present study. Behavior strategies to approach the difficulties resulting from the disease were observed. The passive posture was often reported by patients as a way to control pain during intercourse. The same result was observed in our study, in which the more passive attitude of the man (position C) was considered the least painful.

Briefly, disease activity, functional capacity and longer duration of AS can interfere with sexual activity, but do not always prevent patients from having sexual satisfaction or achieving orgasm.

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